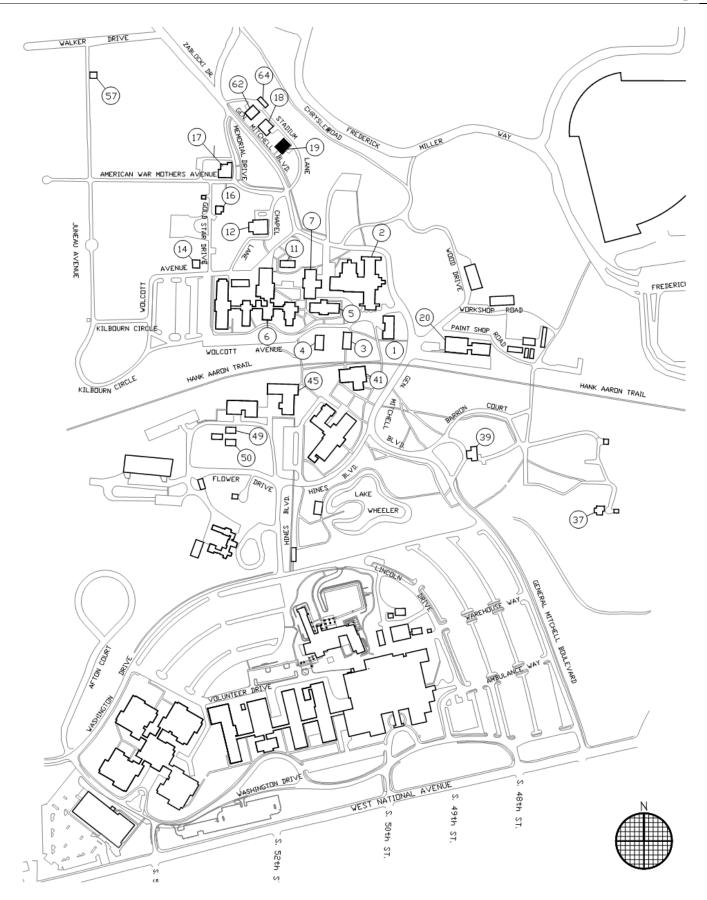
Site Map 19-2
Building Abstract 19-3
Building Descriptions 19-4
Maintenance and Treatment Plans 19-12





Chapter 3: Architectural and Archeological

**Structure Number:** 19

Original Use: Housekeeping Residence
Present Use: Personnel Quarters (duplex)

**Construction Date:** 1921 **Architect:** Unknown

Number of Levels: Three (including basement)

Total Area: 7,646 square feet
Plan Shape: Rectangular
Basic Construction: Wood frame
Uses per Floor: Basement

# First Floor

Porch, Living Room, Dining Room, Kitchen, Back Porch, Closet and Toilet off Back Porch, Pantry off Kitchen, Stairway

# Second Floor

3 Bedrooms, enclosed Back Porch, Bathroom, 2 Closets, Stairway





Building 19 is a two story, frame duplex in the Colonial Revival style, oriented to the southwest. It has a poured concrete foundation and is sided with clapboard and corner boards. It has an asphalt shingle-covered, truncated hipped roof with exposed rafter tails and small semi-circular dormers. There is a full-width screened porch on the southwest façade, partitioned down the center. Most of the porch is hipped with exposed rafter tails, but above the central section it is flat. The porch is supported by large square white columns with applied molding; at the corners the columns are grouped in threes. The front doors are wood with glass panes. Windows are typically six-over-six double hung, although those flanking each entry door on the first floor are tripartite windows consisting of wide, multi-light double-hung windows flanked by narrower double-hung windows. On the second floor of the front façade, is a set of narrow, four-over-four light sash windows. On the interior, the units share carpeted floors and plastered walls covered with wallpaper. The main stairway in each unit is open, and each has a fireplace with brick surround and flanking columns, and a reddish brown tile hearth. Columns are on each side of the dining room entry. The dining rooms have a built-in cabinet. Building 19 continues to be used for housing.

-NHL Nomination, Northwestern Branch, National Home for Disabled Volunteer Soldiers (2010)

Additional comments on current use and condition:

Currently, the north and south portions of Building 19 are serving as residences.

The building exterior is in fair condition. Many of the wood elements have peeling paint and some are deteriorating. The older wood windows have had aluminum storm windows added on the exterior. The asphalt shingle roof and metal roof flashing have substantial deterioration. A wood ramp is linked to the north unit, but it is not complaint with current handicap accessibility standards.

The north portion of the building interior is unoccupied and in good condition. The south portion of the building interior is occupied and in good condition. There is evidence of water infiltration in the basements and attics. Many of the second floors ceiling finishes are peeling in the north portion. Building levels and toilet rooms are not handicap accessible.

## FOUNDATION/BASEMENT CONSTRUCTION

The existing foundation system for **Building 19** consists of a poured concrete wall construction, with a thickness of roughly 1'-0". The foundation wall system for this building also utilizes 12" internal masonry piers with intermediate wood floor beams.

The exterior foundation wall system, along with the internal masonry piers & associated wood floor beams, serve as the main support for the 2x wood floor & wall framing members above.

Portions of the existing foundation walls have been left exposed from the exterior, while the foundation walls have been left fully exposed within the basement space. In both instances, these walls retain a painted concrete wall finish.

#### **NOTED DEFICIENCIES**

Overall, the existing poured concrete foundation walls were found to be in 'good' condition.

Minor cracking and surface deterioration is present on both the exterior & interior faces of the foundation walls. There was also minor structural deterioration found for many of the interior masonry piers. More significant cracking and surface deterioration was at the foundation walls at the (1) exterior patio location.

In addition, there is some evidence of moisture damage as evidence by the presence of surface deterioration and discoloration of the exposed basement foundation walls. In some instances, some of the exterior & interior painted finishes have begun to chip and peel away.

See the 'Exterior Maintenance Treatment Plan' for affected areas and locations of noted deficiencies above.

### **RECOMMENDATIONS**

Repair of all existing concrete foundation walls where cracking and deterioration has occurred should be addressed in the near future. Cleaning & removal of the surface deterioration that is currently present would also be recommended.

In regards to the foundation walls at the (1) exterior patio location where more significant cracking has occurred, further structural analysis is advised to help determine the extent and type of repairs needed. Temporary structural shoring along with new foundation walls may be required at this location in order to prevent further structural deterioration to the floor construction above.

#### FIRST & SECOND FLOOR CONSTRUCTION

All exterior wall framing above the basement walls appears to be 2x wood studs. The majority of the exterior wall framing was not visible due to the interior finishes present, but is assumed to be standard 2x wall framing at 24" on center.

First floor framing consists 2x wood floor joists, supported by intermediate masonry piers & intermediate wood floor beams. The existing first floor framing has been left exposed and is readily visible from the basement. Existing wood floor framing was found to be roughly 16" on center.

First floor framing also includes the floor framing associated with the (1) exterior patio. Floor framing for this patio is not readily visible from the exterior, but is assumed to be constructed of 2x wood floor joists at roughly 16" on center. Floor joist are then supported by the poured concrete foundation walls below.

Second Floor framing is not readily visible due to the interior finishes present, but is assumed to be constructed of 2x wood floor joists at roughly 16" on center.

#### **NOTED DEFICIENCIES**

The First & Second Floor wall framing is not readily visible due to the interior finishes present. However, there is no evidence of moisture damage or other deficiencies as evidenced by the current status of the existing wall finishes.

In regards to the main First Floor framing that has been left fully exposed & is readily visible from the basement, there is some evidence of moisture damage & surface deterioration as evidence by the discoloration of the exposed wood floor joists and associated framing. More importantly however, moderate cracking & structural deterioration was found in some of the intermediate wood floor beams.

The First Floor framing associated with the (1) exterior patio are only partially exposed to the exterior. The exposed framing members primarily consists of the perimeter 2x wood rim joists & associated floor framing that rest on the concrete foundation walls below. In this instance, there is some evidence of moisture damage & surface deterioration as evidence by the discoloration of these exposed wood members. In some instances, the painted finishes have begun to chip and peel away.

In addition to the deficiencies noted above, there is one other area of more significant concern in regards to the First Floor framing. The floor framing associated with the exterior patio has experienced significant structural deflection & differential movement. This has caused noticeable sagging and warping of the finished floor surface. This is likely the result of the cracking and deteriorating foundation walls below.

The Second Floor framing is not readily visible due to the interior ceiling finishes present. There is no evidence of moisture damage or other deficiencies as evidenced by the current status of the existing ceiling finishes.

See the 'Interior Maintenance Treatment Plan' for affected areas & locations of the noted deficiencies above.

## **RECOMMENDATIONS**

In general it is recommended that all structurally solid exposed interior and exterior wood framing members be cleaned and refinished to prevent further weathering and surface deterioration.

In regards to the floor construction associated with the (1) covered exterior patio where noticeable structural deflection differential movement has begun to take place; further structural analysis is advised to help determine the extent and type of repairs needed. Temporary structural shoring along with new foundation walls may be required at this location in order to prevent further structural deterioration to the floor construction above.

#### **ROOF CONSTRUCTION**

The main roof construction for the building is a hipped-style roof with a flat top, and also includes (1) pitched roof exterior patio.

The main roof construction is constructed 2x wood rafter framing, spaced roughly 24" on center and is supported by the exterior 2x wood wall framing. Rafter framing is then over-framed with 2x wood roof boards and finished off with asphalt shingles.

Roof framing associated with the pitched roofs for the (1) exterior patio is not readily visible due to the interior ceiling finishes present, but is assumed to be constructed of standard 2x wood roof framing, spaced roughly 24" on center. Roof framing is then supported by both perimeter wood posts & beams and the exterior 2x wood wall framing. Finish for this roof is comprised of asphalt shingles.

# **Structural Building Description**

Quarters Building 19

#### **NOTED DEFICIENCIES**

The existing wood roof framing associated with the main roof was found to be in 'excellent' condition, with no major structural deficiencies to note. However, there is a presence of minor moisture damage & surface deterioration as evidence by the surface discoloration of the exposed wooden members.

Roof framing associated with exterior patio was found to be in 'good' condition. In this instance, there are some signs of some minor structural deflection to the roof construction and supporting structure, as a noticeable 'belly' is visible from the exterior.

See the 'Interior Maintenance Treatment Plan' for the affected areas and locations of the noted deficiencies above.

#### RECOMMENDATIONS

In general it is recommended that all exposed interior & exterior wood roof framing be cleaned and refinished to prevent further weathering and deterioration. Wood members that are structurally compromised should be replaced.

In regards to the roof construction associated with exterior patio where noticeable structural deflection has occurred, further structural analysis is advised to help determine the extent and type of repairs needed. Structural shoring and additional roof framing may be required to prevent further structural damage.

#### **MECHANICAL DESCRIPTION:**

The mechanical system consists of three furnaces with ducted supply and return air to the space. The furnaces are high-efficiency natural gas furnaces with remote DX-style condensing units. A furnace located in the basement serves the south apartment. Two furnaces serve the north apartment. One is located in the basement serving the lower level with in-floor air distribution. A furnace located in the attic serves the upper floor with overhead air distribution. Natural ventilation through operable windows is the only source of ventilation air. No mechanical ventilation is present.

Plumbing for the facility consist of a residential natural gas water heaters in each apartment. Hot water is distributed throughout each apartment. No hot water recirculation is present. Plumbing fixtures consist of residential style fixtures. Storm is drained to grade via rain gutters and downspouts.

No fire protection is present in the facility.

#### **MECHANICAL NOTED DEFICIENCIES:**

- Return air ductwork routed in the unconditioned attic space is not insulated. This does not meet current energy codes and could result in condensation accumulation.
- No mechanical exhaust is present in the toilet rooms.

#### **MECHANICAL RECOMMENDATIONS:**

KJWW Engineering conducted a facility visual non-destructive investigation and recommends the following items bring the facility to habitable conditions.

- Insulate the return air ductwork in the unconditioned attic space to meet current energy codes.
- Provide mechanical exhaust in the toilet rooms.

### **ELECTRICAL DESCRIPTION:**

The Electrical system consists of a 150A, 120/240V, 1 phase, 3 wire service, with utility meter and pedestal, and transformer XF19 located west of the house. Circuit breaker panels are located in the basement with 150A main disconnecting means, both located in north side of duplex. Branch lighting and power circuits are installed in both MC Cable and EMT conduit. Lighting throughout the interior of the house, as well as on the exterior is of a 120V incandescent lamp source and varies in surface, recessed, and suspended residential type fixtures. Standard toggle switch type control is provided throughout first and second floor rooms with some pull chain type fixtures in the basement and attic spaces. Stand alone battery type smoke alarms are located on each of the levels from basement to the attic. Building is in good condition and is occupied as a duplex. North side is in poor condition, south side is in excellent condition.

#### **ELECTRICAL NOTED DEFICIENCIES:**

- Miscellaneous junction boxes missing covers and splices exposed.
- Miscellaneous light switches and receptacles appear to be in need of replacement.

# **ELECTRICAL RECOMMENDATIONS:**

KJWW Engineering conducted a facility visual non-destructive investigation and recommends the following items bring the facility to habitable conditions.

Change lamping to a self-ballasted type fluorescent lamp.

- Inspect all EMT conduit, MC Cable, and junction box installations and bring up to current installation standards.
- Replace the existing lighting switches, power receptacles, and faceplates throughout the entire house.
- Replace wiring and disconnects for new furnaces and condensing units.
- Provide GFI receptacles where required by code and VA standards.

## **TECHNOLOGY DESCRIPTION:**

The Technology systems currently consist of telephone and CATV cabling.

The building is fed by buried multipair copper telephone backbone cabling and coaxial CATV cabling.

Telephone cabling consists of Quad-type cable run to faceplates and surface-mount boxes. CATV cabling consists of RG-6 cable installed exposed and run to faceplates; some of the CATV cabling is run on the exterior of the building.

#### **Asbestos**

Building 19 has minor to moderate damage of materials suspected of containing asbestos (suspect material) that may contribute to the release of or exposure to asbestos.

#### **Asbestos Noted Deficiencies and Recommendations**

The interior brick and mortar foundation is showing signs of spalding/deterioration along the base of the floor and approximately two feet along the perimeter of the basement and on support columns. The spalded/deteriorated brick and mortar should be repaired or replaced. Plaster damage is evident in the attic around the chimney and should be repaired. A few cracked ceramic wall tiles were observed in the bathroom of the north unit and should be repaired or replaced. See the 'Hazardous Materials Maintenance Treatment Plan - Exterior' and 'Hazardous Materials Maintenance Treatment Plan - Interior' for locations of affected areas noted above. All activities involving asbestos or materials assumed to contain asbestos should be conducted in accordance with all local, state and federal rules and regulations.

#### **Lead-Based Paint**

Painted exterior building surfaces include poured concrete foundation walls, wood porch structural members, wood clapboards and corner boards, window frames, doors and door frames, eaves/ trim, and wood stairs and associated framing. Painted interior building surfaces include concrete foundation walls, wood floor joists and wood beams, stairs, handrails, and ceiling and plaster walls.

#### **Lead-Based Paint Noted Deficiencies**

The exterior paint is chipped and peeling on eaves/ trim, wood clapboards and corner boards, doors and door frames, wood porch structural members, wood stairs and associated framing, window frames, and foundation walls. The interior paint is chipped and peeling on foundation walls, stairs leading to basement and associated handrail, wood floor joists and associated framing in basement, and second floor ceiling and walls. See the 'Hazardous Materials Maintenance Treatment Plan - Interior' for locations of affected areas noted above.

#### **Lead-Based Paint Recommendations**

Paint which has begun to peel due to a failure of the bond to the wood, plaster, or metal substrate should be removed. Paint is best removed with the careful use of metal scrapers. Sanding is usually required to eliminate rough surfaces and to smooth the transition between areas of raw wood and solid original painted surfaces. Before repainting, all raw surfaces should be primed with a tested and approved primer. This treatment should then be followed by required coat(s) of paint of the type and color to match the surrounding area. All activities must be conducted in a manner consistent with the requirements provided in 29 CFR 1926.

#### **Suspect Mold Growth**

Building 19 shows signs of moisture damage. The basement foundation walls and concrete flooring have surface discoloration, a sign of moisture damage. The wood structural members visible in the basement for the first floor have surface discoloration of the exposed wood floor joists and associated framing. The exposed wooden members in the attic have surface discoloration. The exposed wood structural members of the porch have surface discoloration.

#### **Suspect Mold Growth Noted Deficiencies**

Suspect visible mold growth was visually observed on window sills on the second floor bedrooms on the north side of the building. See the 'Hazardous Materials Maintenance Treatment Plan - Exterior' and 'Hazardous Materials Maintenance Treatment Plan - Interior' for locations of affected areas noted above.

# **Hazardous Materials Building Description**

Quarters Building 19

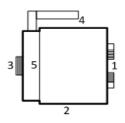
# **Suspect Mold Growth Recommendations**

Suspect mold growth and stained building materials implies that there is or has been water intrusion or leaks or the relative humidity within the building was high enough to cause localized or widespread condensation. It is recommended that the moisture source be located and corrected, if this has not already taken place, remove fungal-impacted building materials, and replace or repair the water stained materials.

**CONSTRUCTED:** 1921 **GENERAL NOTES:** 

The building exterior is in fair condition. Many of the wood elements have peeling paint and some are deteriorating. The older wood windows have had aluminum storm windows added on the exterior. The asphalt shingle roof and metal roof flashing have substantial deterioration. A wood ramp is linked to the north unit, but it is not complaint with current handicap accessibility standards.





EXTERIOR MATERIAL /	DDODLEM IDENTIFIED							P	RO	BLI	M	LO	CAT	ΙΟΙ	N							DCMD	BUOTO
FEATURE	PROBLEM IDENTIFIED	1	2	3	4	5	(	6	7	8	9	10	11	12	13	14	1 1	15 :	۱6	17	18	RCMD	РНОТО
Foundation System																							
Concrete, Poured	Cracked, Spalled Unit	•	•	•	•																	C2	
	Peeling Paint	•	•	•	•																	P1	1
Concrete, Stairs	Cracks or Pits in Concrete			•																		C2	2
Wall System																							
Wood Clapboards	Advanced Deterioration				•																	W3	
,	Minor Deterioration		Г																			W2	
	Dirt Buildup on Wood	•	•		•	•																W6	3
	Peeling Paint - Moderate				T																	P1	
	Peeling Paint - Major	•	•	Т	•	•																P1	
	Chips, Cracks, Scratches		Г																			W1	
	Unused Fitting					•																W8	
Wood Porches	Deterioration - Moderate	•															Ī					W2	4,5
	Advanced Structural Deterioration			•																		W3	,
	Peeling Paint																Ī					P1	
	Peeling Paint - Major	•	•	•	•																	P1	5,6
	Chips, Cracks, Scratches																					W1	- , -
	Damaged Screen		•																			06	6
Wood Ramp	Unpainted Material				•																	P2	11
Doors	Peeling Paint	•	Г	•													Ī					P1	
Windows	Inappropriate Material	•	•		•	•																03	10
	Air Conditioning / Ventilating Units		•	г	•												Ī					04	
	Missing / Damaged Storm	•	Г		•												T					08	
	Deteriorating Wood Frame																					W2	
	Inappropriate Wood Infill				г												Ī					07	
	Deteriorating Caulk	•	•	Т	•	•											T					09	10
Roof System		Ì													Ī		Ī	Ť					
Asphalt Shingles	Torn Shingles																t					S2	
r topridire orining.co	Missing, Damaged, or Worn Shingles	•	•	•	•	•											t					S2	3
	Stained Shingles	•	•	+	_		+										t					S3	3
	Flashing Deterioration	•	₩		•	•																M8	3,8
Tin Dormer Roofs	Rusting Roof	•	•	_	•	•																M11	- , -
Eaves / Trim	Loose Elements		г	•													t					W4	7
	Missing Elements			•													t					W5	10
	Peeling Paint - Minor		Г	т	Н												t					P1	
	Peeling Paint - Major	•	•	•	•	•											t					P1	7,8,9
	Deterioration - Moderate			•	•				$\exists$													W2	7
	Dirt Build-up	•	•	•	_	-			$\dashv$						T		t					W6	
Gutter and Downspouts	Peeling Paint				Г				1						H		t	+				M1	
	Loose Attachments	1					1		$\dashv$						T		t					M3	
	Dented Downspouts		Г						_						H							M7	

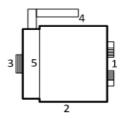
# **Architectural Maintenance and Treatment Plan - Exterior**

Quarters Building 19

**CONSTRUCTED:** 1921 **GENERAL NOTES:** 

The building exterior is in fair condition. Many of the wood elements have peeling paint and some are deteriorating. The older wood windows have had aluminum storm windows added on the exterior. The asphalt shingle roof and metal roof flashing have substantial deterioration. A wood ramp is linked to the north unit, but it is not complaint with current handicap accessibility standards.





EXTERIOR MATERIAL /	PROBLEM IDENTIFIED							PRC	DBL	EM	LO	CAT	ION	J						DCMD	DUOTO
FEATURE	PROBLEM IDENTIFIED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	RCMD	РНОТО
Miscellaneous																					
Electrical Cables	Surface Mounted Electrical Equipment	•	•		•															E1	12
Lighting	Missing Elements																			L2	
Handicap Accessibility	Handicap Access Unavailable	•		•																Н3	
	Handicap Access Not Compliant				•															H4	11

**PROBLEM KEY** 

= 1992 Condition

• = 2010 Condition

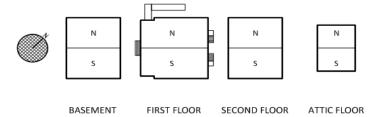
= 1992 and 2010 Condition

# **Architectural Maintenance and Treatment Plan - Interior**

Quarters Building 19

# **CONSTRUCTED**: 1921 **GENERAL NOTES**:

The north portion of the building interior is unoccupied and in good condition. The south portion of the building interior is occupied and in good condition. There is evidence of water infiltration in the basements and attics. Many of the second floors ceiling finishes are peeling in the north portion. Building levels and toilet rooms are not handicap accessible.



Interior renovations and finish upgrades have resulted in few or no significant historical features remaining to document. Interior conditions were not documented in the 1992 report for this building.



**1** Peeling paint at concrete foundation wall and wood veranda.



**2** Spalled concrete foundation wall.



**3** Dirt build up on wood clapboards; damaged asphalt shingles; flashing deterioration.



**4** Deterioration at wood verandas.



**5** Peeling paint and deterioration at wood verandas.



**7** Deterioration at fascia.



**6** Peeling paint and damaged screen at wood verandas.



**8** Peeling paint at fascia; damaged asphalt shingles; flashing deterioration.



**9** Peeling paint at eaves.



**11** Handicap access not compliant; unpainted material.



**10** Aluminum storm windows; deteriorating caulk; missing trim elements.



**12** Surface mounted equipment.

# **CONSTRUCTED:** 1921

# **GENERAL STRUCTURAL NOTES:**

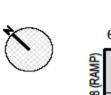
THE EXTERIOR STRUCTURAL SYSTEMS ARE IN 'FAIR' CONDITION AND ARE IN NEED OF SOME MODERATE REPAIRS AS NOTED BELOW.

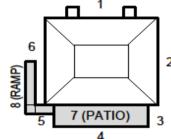
MODERATE REPAIRS ARE NEEDED FOR THE FOUNDATION WALLS AS NOTED BELOW AS CRACKING TO THE EXISTING CONCRETE FOUNDATION WALLS HAS TAKEN PLACE. MORE SIGNIFICANT CRACKING WAS FOUND AT THE CONCRETE WALLS OF THE PATIO.

MODERATE REPAIRS ARE NEEDED FOR THE COVERED PATIO & ASSOCIATED STAIRS.

DETERIORATION OF THE EXPOSED WOOD HAS TAKEN PLACE OVER TIME. IN ADDITION, THE EXTERIOR PATIO FLOOR HAS A SIGNIFICANT SAG & WARP TO IT. THE PATIO & ASSOCIATED STRUCTURE HAVE FALLEN AWAY FROM THE BUILDING ITSELF. THE ASSOCIATED FOUNDATION WORK FOR THESE PATIOS HAS CRACKED IN VARIOUS LOCATIONS. THESE ITEMS SHOULD BE ADDRESSED IN THE NEAR FUTURE TO PREVENT FURTHER STRUCTURAL DAMAGE.

THE EXISTING ROOF AND ASSOCIATED FRAMING WERE FOUND TO BE IN GOOD CONDITION WITH THE EXCEPTION OF THE ROOF OVER THE PATIO. MODERATE REPAIRS ARE NEEDED FOR THIS ROOF AND ASSOCIATED FRAMING. ROOF CURRENTLY HAS A SIGNIFICANT 'BELLY' TO IT THAT IS CLEARLY VISIBLE FROM THE OUTSIDE. REPLACEMENT OF THE WARPED ROOF & ASSOCIATED ROOF FRAMING IS SOMETHING THAT SHOULD BE ADDRESSED IN THE NEAR FUTURE.





57.5000 17514	2222151412511715152								PRC	OBL	EM	LO	CAT	IOI	١							20112	DUOTO
EXTERIOR ITEM	PROBLEM IDENTIFIED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	RCMD	РНОТО
Structural - Foundation																							
	Problem 1 - Minor																						
Concrete Foundation Wall - Exterior	Wall Cracking - Moderate	•	•	•	•	•																C2	2, 3
	Wall Cracking - Major			•	•	•																C2	1
	Problem 1 - Minor																						
Wood Floor Framing - Patio Stairs &	Deterioration of Exterior Wood																					W2	4
Ramp	Stair - Moderate	Ľ			Ľ																	***	7
·	Deterioration/Warping of Existing								•													W3	7
	Patio/Ramp Floor Framing - Major																						,
	Problem 1 - Minor																						
	Deterioration of Exposed Wood							١.														W2	1
Wood Floor Framing - Patio	Patio Framing - Moderate					Ľ		Ľ														VVZ	1
	Warping of Existing Patio Floor																					E\A/1	5
	Construction - Major							•														FW1	5
Structural - Roof																							
	Problem 1 - Minor																						
Wood Boof Framing	Warping of Existing Patio Roof																					D\A/1	6
Wood Roof Framing	Construction - Moderate							•														RW1	6
	Problem 1 - Major																						

# **Structural Maintenance and Treatment Plan - Interior**

Quarters Building 19

**CONSTRUCTED:** 1921

# **GENERAL STRUCTURAL NOTES:**

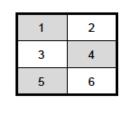
THE INTERIOR STRUCTURAL SYSTEMS ARE IN 'FAIR' CONDITION AND ARE IN NEED OF SOME MAJOR REPAIRS AS NOTED BELOW.

MODERATE REPAIRS ARE NEEDED FOR THE FOUNDATION WALLS AS NOTED BELOW AS CRACKING TO THE EXISTING CONCRETE FOUNDATION WALLS HAS TAKEN PLACE.

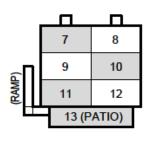
MODERATE REPAIRS ARE NEEDED FOR THE WOOD FLOOR FRAMING AS NOTED BELOW. MUCH OF THE EXPOSED WOOD FRAMING HAS UNDERGONE SEVERE DETERIORATION. ADVANCED STRUCTURAL DETERIORATION & SPLITTING OF THE EXISTING FIRST FLOOR SUPPORT BEAMS WAS FOUND AS NOTED BELOW.

MODERATE REPAIRS ARE NEEDED FOR ROOF FRAMING AND ASSOCIATED ROOF BOARDS. MINOR DETERIORATION OF THE EXISTING ROOF FRAMING & ASSOCIATED FLOOR BOARDS WAS FOUND AS NOTED BELOW.

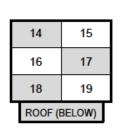




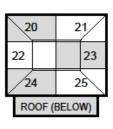
BASEMENT



FIRST FLOOR



SECOND FLOOR



ROOF

INITEDIOD ITEM	PROBLEM IDENTIFIED												P	RO	BLE	M	LO	CAT	ION												I	RCMD	DUOTO
INTERIOR ITEM		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19 2	20 2	21 2	22 2	23	24 2	25	26	27 2	28	29	30		РНОТО
Structure - Floors																																	
Concrete Floor Slab -	Floor Cracking - Minor		•		•		•																									C2	
Basement	Problem 1 - Moderate																																
basement	Problem 1 - Major																																
	Warping of Existing Floor																																
Mood Floor Framing First 9	Construction - Minor													•																		FW1	
Wood Floor Framing - First &	Deterioration of Existing Wood																																
Second Floors	Floor Framing - Moderate							•	•	•	•	•	•	•																		W2/W3	12
	Problem 1 - Major																																
Structure - Walls/Columns																										T							
	Problem 1 - Minor																																
Structural Walls - Concrete	Wall Cracking - Moderate	•	•			•	•																									C2	8, 9
	Wall Cracking - Major					•	•																									C2	10
	Wall Cracking - Minor																				•	•										MB2	14
Structural Walls - Brick	Wall Cracking - Moderate	•	•	•	•																											MB2	11
	Problem 1 - Major																																
Structure - Roof																																	
	Deterioration of Existing Wood																									T						VA/2	
Mand Doof Francisco	Roof Framing - Minor																				•   •	•	•	•	•	•						W2	13, 14
Wood Roof Framing	Problem 1 - Moderate																																
	Problem 1 - Major																																



**Photo 1:** Deterioration & Cracking at Existing Concrete Foundation Walls.



**Photo 3**: Deterioration & Cracking at Existing Concrete Foundation Walls.



**Photo 2**: Deterioration & Cracking at Existing Concrete Foundation Walls.



**Photo 4:** Deterioration of Exterior Wood Stair & Associated Framing.



**Photo 5:** Deterioration & Warping of Existing Exterior Patio.



**Photo 7:** Deterioration & Warping of Building Ramp & Associated Framing.



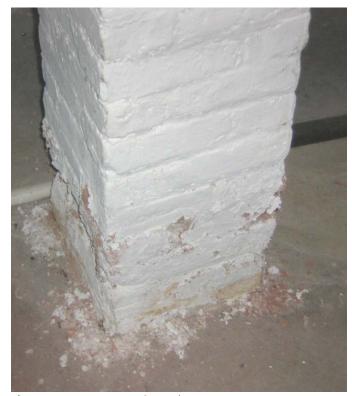
Photo 6: Deterioration & Warping of Existing Patio Roof.



**Photo 8:** Deterioration & Cracking at Existing Concrete Foundation Walls.



**Photo 9:** Deterioration & Cracking at Existing Concrete Foundation Walls.



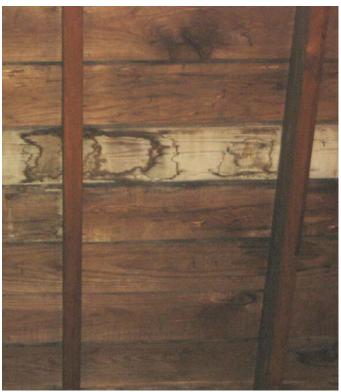
**Photo 11:** Deterioration & Cracking at Existing Interior Masonry Column.



**Photo 10:** Deterioration & Cracking at Existing Concrete Foundation Walls.



**Photo 12:** Deterioration of Existing Wood Beam & Associated Floor Framing.

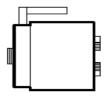


**Photo 13:** Deterioration of Existing Wood Roof Framing & Associated Roof Boards.



**Photo 14:** Deterioration of Existing Brick Chimney Stack, Wood Roof Framing, & Roof Boards.

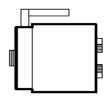




EVERIOR CYCES 40	ITTAK NOTED			OPERA	TIONAL	DE1115//2
EXTERIOR SYSTEMS	ITEMS NOTED	YES	NO	YES	NO	REMARKS
Lighting						
General Lighting	277 volt lighting		•			
0 0	120 volt lighting	•		•		
	Incandescant Lighting	•				
	Fluorescant Lighting		•			
	Recessed Mount Fixtures		•			
	Suspended Fixtures		•			
	Wall pack fixtures	•	•	•		
	Wall pack likedies					
Emergency Lighting	Emergency units with lighting heads		•			
Lighting Control	Toggle switches	•		•		
	Time clock		•			
Power					<u> </u>	
Service and Distribution	277/480 volt, 3 phase, 4 wire service		•			
	120/208 volt, 3 phase, 4 wire service		•			
						XF19 Between BLDG 18 & 19, Northside of
	Pad mount transformer location	•		•		BLDG 19
	Main service disconnecting means	•		•		
	Emergency generator		•			
	Auto door operators		•			
		•				
Electrical Installations	Underground service entrance	•				
	Overhead service entrance		•			
Fire Alarm						
Notification	Horns and strobes		•			
	Speakers and strobes		•			
	Chime/bell		•			
Detection	PIV (post indicator valve) interface		•			
Nurse Call System			•			
•						
Access Control System			•			
Intrusion Detection						
System			•			
Video Surveillance		<u> </u>			<u> </u>	
System			•			
Synchronized Clock					<u> </u>	
System			•			
•	The state of the s					•

Chapter 3: Architectural and Archeological



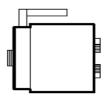


EXTERIOR SYSTEMS	ITEMS NOTED	YES	NO	OPERA	TIONAL	DENABRE
EXTERIOR SYSTEMS	ITEMS NOTED	YES	NO	YES	NO	REMARKS
Overhead Paging System						
			•			
Structured Cabling						
Pathways	Manholes		•			
	Handholes		•			
	Buried conduit		•			
	Ductbank		•			
	Direct-buried cable	•		•		coax & phone
Incoming Service Demarc	Wall-mounted multipair copper	•		•		north side of building
	Wall-mounted fiber optic		•			
	Wall-mounted coaxial copper	•				north side of building
Incoming Service Cable	multipair copper (list pair count)	•		•		6-pr
	fiber optic (list strand types and count)		•			
	coaxial copper	•		•		
Backbone Cable Types	multipair copper (list pair count)		•			
	Category 5e or 6 UTP		•			
	fiber optic (list strand types and count)		•			
	coaxial copper		•			
Mechanical						
Ventilation Equipment						
	Wall mounted louvers		•			
	Roof intake hood		•			
	Roof exhaust hood		•			
	Wall mounted exhaust fans		•			
	Roof mounted fans		•			
	Areawell style outside air intake		•			
	Areawell style exhaust discharge		•			
Heaing or Cooling	Roof rounted residential condensing unit		•			
Equipment	Roof mounted commercial condensing unit		•			
	Pad mounted residential condensing unit	•		•		
	Pad mounted commercial condensing unit		•			
	Roof mounted HVAC unit		•			
	Pad mounted HVAC unit		•			
	PTAC unit		•			
	Window air conditing units		•			

Quarters

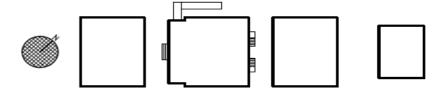
**CONSTRUCTED**: 1891 **GENERAL NOTES:** 





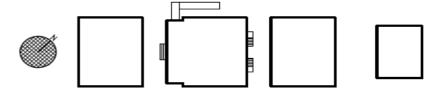
		T		OPERA	TIONAL	251128//2
EXTERIOR SYSTEMS	ITEMS NOTED	YES	NO	YES	NO	REMARKS
Plumbing						
Storm	Gutters to grade	•		•		
	Gutters to underground storm piping		•			
	Sump discharge to grade		•			
Domestic water	Exterior hose bibs	•		•		
Natural gas	Gas meter & location	•		•		North and south side of building
Fire Protection						
General Fire Protection						
	Fire department connection		•			
	Post indicator valve		•			
	Sprinklers		•			
	Hose valve		•			

North was in poor condition, South was in excellent condition.



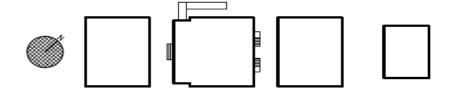
BASEMENT FIRST FLOOR SECOND FLOOR ATTIC FLOOR **OPERATIONAL INTERIOR SYSTEMS ITEMS NOTED** NO **REMARKS** YES NO Lighting **General Lighting** 277 volt lighting • 120 volt lighting • Incandescant Lighting • Fluorescant Lighting • **Recessed Mount Fixtures** One recessed fixture in South restroom Surface Mount Fixtures • • Suspended Fixtures Track lighting • • • **Emergency Lighting Exit Signs** Exit Signs with lighting heads • Emergency units with lighting heads Battery units internal to fixture • • **Lighting Control** Toggle switches • • • • Occupancy sensors Time clock pull-chain fixtures • • **Power** Service and Distribution 277/480 volt, 3 phase, 4 wire service • • 120/208 volt, 3 phase, 4 wire service • Main electrical service size • N & S DS located in N, 150A DS & 150A MCB. Emergency generator • • Branch panels throughout building lacktrianglelacktrianglePassenger or freight elevator • • • Auto door operators 120/240 volt, 1 phase, 3 wire service **Electrical Installations** Surface panelboards • • lacktriangleRecessed panelboard • Concealed conduit/backboxes • • • • Exposed surface mount conduit/backboxes • Exposed surface mount raceway/backboxes Fire Alarm Fire Alarm Control Panel • Fire Control Panel • • Fire Alarm Annunciator Addressable fire alarm system lacktrianglelacktriangleZone fire alarm system • • • Wired to campus fire alarm fiber optic loop •

North was in poor condition, South was in excellent condition.



ATTIC FLOOR BASEMENT FIRST FLOOR SECOND FLOOR **OPERATIONAL INTERIOR SYSTEMS ITEMS NOTED** NO **REMARKS** YES NO Notification Horns and strobes • • • • Speakers and strobes Chime/bell Detection Smoke detection lacktrianglelacktriangle• Duct smoke detection • • • Heat detection • **Pull stations** Fire protection system interface • • PIV (post indicator valve) interface Smoke alarms - 120 volt stand alone lacktriangle• • • Magtetic hold opens **Nurse Call System** • **Access Control System** lacktriangle**Intrusion Detection System** Video Surveillance System lacktriangle**Synchronized Clock** System lacktriangle**Overhead Paging System** Structured Cabling • **POTS lines** lacktrian**Incoming Service Type** Digital voice lines (list type of circuit) lacktriangleData circuit (list type) • • CATV from service provider (list type) lacktriangleTV antenna lacktriangle**Incoming Service Cable** multipair copper (list pair count) lacktrianglelacktriangle6-pr fiber optic (list strand types and count) • • • coaxial copper **Backbone Cable Types** multipair copper (list pair count) Category 5e or 6 UTP • fiber optic (list strand types and count) lacktrianglecoaxial copper •

North was in poor condition, South was in excellent condition.



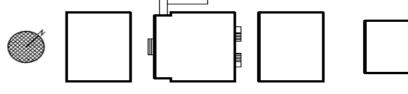
BASEMENT FIRST FLOOR SECOND FLOOR ATTIC FLOOR

OPERATIONAL

REMARKS

INTEDIOD CYCTEMS	ITEMS NOTED	YES	NO	OPERA	TIONAL	DEMARKS
INTERIOR SYSTEMS	ITEMS NOTED	TES	NO	YES	NO	REMARKS
Horizontal Cable Types						
	Quad cable (red/green/yellow/black cond.)	•		•		
(list MFR, P/N, & rating)						
	Category 3 UTP		•			
	Category 5e UTP		•			
	Category 6 UTP		•			
	fiber optic (list stand types and count)		•			
Telecom Room						
Connectivity	Wall-mounted voice punchdown blocks	•		•		
(list MFR, P/N, types)	rack-mounted voice punchdown blocks		•			
	wall-mounted fiber termination cabinets		•			
	rack-mounted fiber termination cabinets		•			
	wall-mounted UTP patch panels		•			
	rack-mounted UTP patch panels		•			
	wall-mounted coaxial terminations	•		•		
	rack-mounted coaxial patch panels		•			
Workstation Connectivity						
	UTP voice jacks	•		•		installed at surface-mount boxes and faceplates
(list MFR, P/N, colors)	UTP data jacks		•			
	fiber optic connectors (list type)		•			
	coaxial copper	•		•		installed exposed and in faceplates, some
	faceplates	•		•		cabling run on exterior of building
Mechanical						
General Mechanical	Natural ventilation	•		•		
	Mechanical ventilation		•			
	Air conditioning - DX	•		•		
	Air conditioning - campus chilled water		•			
	Overhead air distribution	•		•		Upper Level
	Underfloor air distribution	•		•		Lower Level
	Steam service & location		•			
	Chilled water service & location		•			
	Single zone HVAC units	•		•		
	Multi-zone HVAC units		•			
	Individual toilet room exhaust fans	•		•		
	Hot water reheat		•			
	Steam reheat		•			

North was in poor condition, South was in excellent condition.

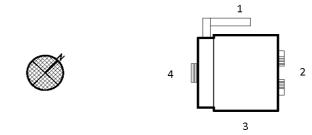


BASEMENT FIRST FLOOR SECOND FLOOR ATTIC FLOOR **OPERATIONAL INTERIOR SYSTEMS ITEMS NOTED** NO **REMARKS** YES NO Mechanical Equipment Furnances & heating type • • High Efficiency natural gas heat, DX cooling • Blower Coil Units & heating type Air Handling Units & heating type lacktriangleBaseboard heat & heating type • • Cabinet heat & heating type Steam Radiators • PTAC units • Window air conditioning units • Hot water boiler **Temperature Control** Standalone thermostats lacktriangle• Pneumatic controls • DDC controls Temperature control zoning 2 zones north apartment, 1 zone south apmt. **Plumbing** • • 1-1/2" South side Service and Distribution Water service size and location Hot water system - 140°F • Hot water system - 115°F Hot water recirculation • Underground domestic distribution lacktriangle• Low efficiency gas water heater -tank type • Plumbing Equipment High efficiency gas water heater - tank type • Electric water heater - tank type Steam water heater - tank type • Boiler with separate storage tanks • • Sump pump **Plumbing Fixtures** Commercial type fixtures lacktriangleResidential type fixtures lacktriangle• Tank type water closets • • Flushvalve water closets Manual faucets type lavatories • • Sensor faucet type lavatories **Fire Protection** • General Fire Protection Sprinklered Attic sprinklered • Standpipe 2-1/2" hose vavles lacktriangle1-1/2" hose valves •

Fire Pump

FP Equipment

**CONSTRUCTED:** 1921 **GENERAL NOTES:** 



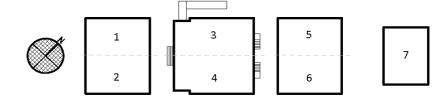
EVTERIOR ITEM	DDODLENA IDENTIFIED							PR	OBL	EM	LO	CAT	IOI	1						DCNAD	ВИОТО
EXTERIOR ITEM	PROBLEM IDENTIFIED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	RCMD	РНОТО
Asbestos																					
Lead-Based Paint	peeling paint																				
	on doors and door frames		•		•															LBP1	3
	on stairs		•		•															LBP1	
	on eaves and trim	•	•	•	•															LBP1	1
	on foundation walls	•	•	•	•															LBP1	
	on wood clapboards	•	•	•	•															LBP1	
	porch structural members				•															LBP1	2
	on window frames	•	•	•	•															LBP1	
Mold Growth	suspect mold growth			Π																	
	on wood clapboards																			M01	
	on porch																			M01	
	water-stained building materials																				
	wood floor framing - porch		•																	M02	
	wood roof framing - porch		•																	M02	

# **Hazardous Materials Maintenance and Treatment Plan - Interior**

Quarters Building 19

**BASEMENT** 

**CONSTRUCTED:** 1921 **GENERAL NOTES:** 



FIRST FLOOR

ATTIC FLOOR

SECOND FLOOR

INTERIOR ITEM	PROBLEM IDENTIFIED							PRO	OBL	.EM	LO	CAT	IOI	١						RCMD	РНОТО
INTERIOR ITEIVI	PROBLEM IDENTIFIED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	KCIVID	PHOTO
Asbestos	spalding, deteriorating brick and mortar	•	•																	AS01	4
	damaged, deteriorating plaster							•												AS01	5
	damaged ceramic wall tile					•														AS01	
Lead-Based Paint	peeling paint																				
	on doors and door frames																			LBP1	
	on foundation wall	•	•																	LBP1	
	on wall					•														LBP1	6, 7
	on ceiling					•														LBP1	6
	on window frames																			LBP1	
	on wood framing	•	•																	LBP1	
	stairs and handrail	•	•																	LBP1	
Mold Growth	suspect mold growth																				
	on wall																			M01	8, 9
	on window frame					•														M01	
	water-stained building materials																				
	wood floor framing	•	•																	M02	
	foundation wall	•	•																	M02	
	wooden structural members							•												M02	
	floor		•																	M02	10



**1** Paint peeling on eaves and column.



**3** Peeling paint on door.



**2** Paint peeling on wood porch framing.



**4** Spalding brick and mortar in basement.



**5** Deteriorating plaster from area above chimney.



**7** Peeling paint on wall.



**6** Peeling paint on ceiling and walls.



**8** Suspect mold growth on window frame.



**9** Suspect mold growth on window frame.



**10** Discoloration on basement floor.